

lightfair International 2003

BEST OF CATEGORY

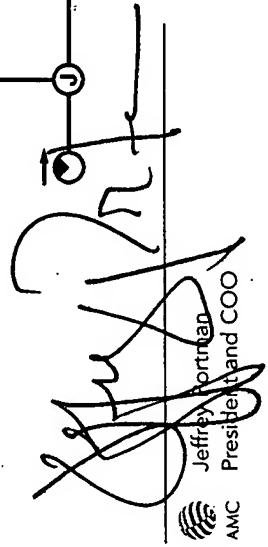
category • Other: Controls
company • LVS, Inc.
product • EPC-A Emergency Power Transfer Control



IALD
André Tammes, IALD
President 2002 - 2003



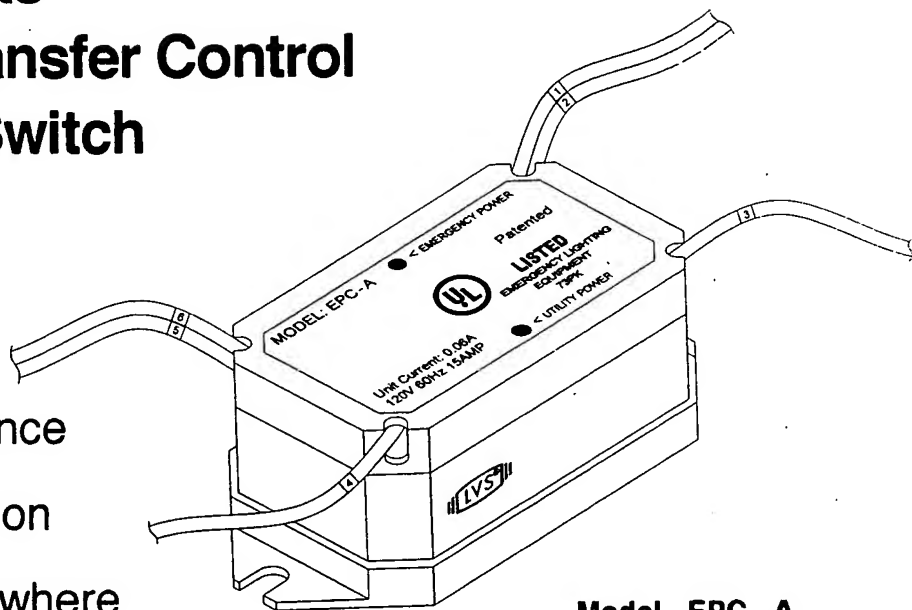
IES
Randy Reid, IESNA
President, 2002 - 2003



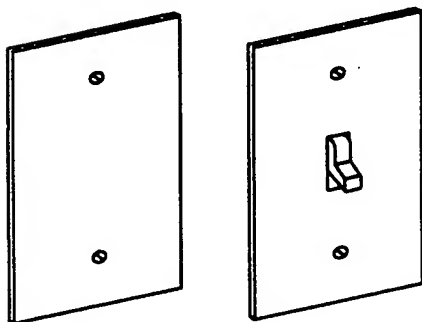
AMC
Jeffrey Kortman
President and COO

LVS Invents Emergency Power Transfer Control without Test Switch

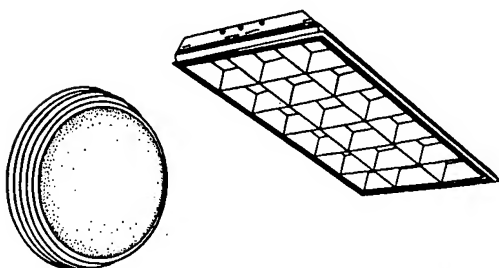
- Minimum size
- Maximum performance
- Fast, versatile installation
- Invisible & Accessible Anywhere



Model - EPC - A
2 3/4" x 1 1/2" x 1 1/4"



Behind wall switch or
Inside junction box with cover



Inside any size or type of luminaire

Emergency Luminaire Control Requirements

In the past, emergency luminaires powered by an emergency generator or inverter during a power outage had to be illuminated 24 hours a day, 7 days a week because of safety codes. However, these codes can now be met if a UL 924 listed emergency power transfer control is used to turn both regular and emergency luminaires on and off at the same time. During a utility power failure or room power interruption, only the designated emergency luminaires will illuminate automatically, regardless of room switch on or off position. LVS Emergency Power Controls have been tested, approved and are listed by Underwriters Laboratories under UL 924 standard designated emergency light fixture controls. They meet NEC articles 700 through 700-26, 701-717, 702-709, 705-750 wherever applicable, in addition to NFPA 1104-2.4.1, OSHA and life safety codes.

Automatic Diagnostic Test Feature

Model EPC-A is equipped with an automatic diagnostic test feature which is initiated when the room switch is momentarily turned on and then off. This simple, effortless test procedure will turn the emergency luminaires on for 15 seconds, indicating that an emergency power source is available and that the Model EPC-A, ballast, and lamp, are all functioning correctly. At all other times the room switch operates normally by turning both regular and emergency luminaires on at the same time. Another unique advantage of the Model EPC-A leaves only the emergency luminaires on for an additional 15 seconds after regular luminaires are turned off, providing safety and convenience while leaving the area.

EPC-A

*The winner of the most innovative
new product award in the
control category at*

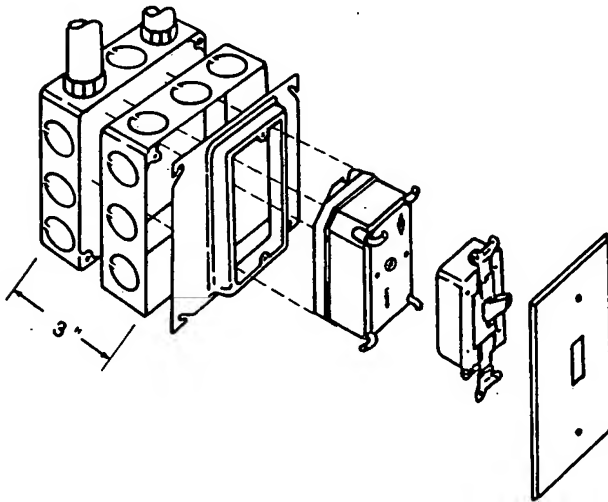
Lightfair 2003, New York

5-Year Warranty

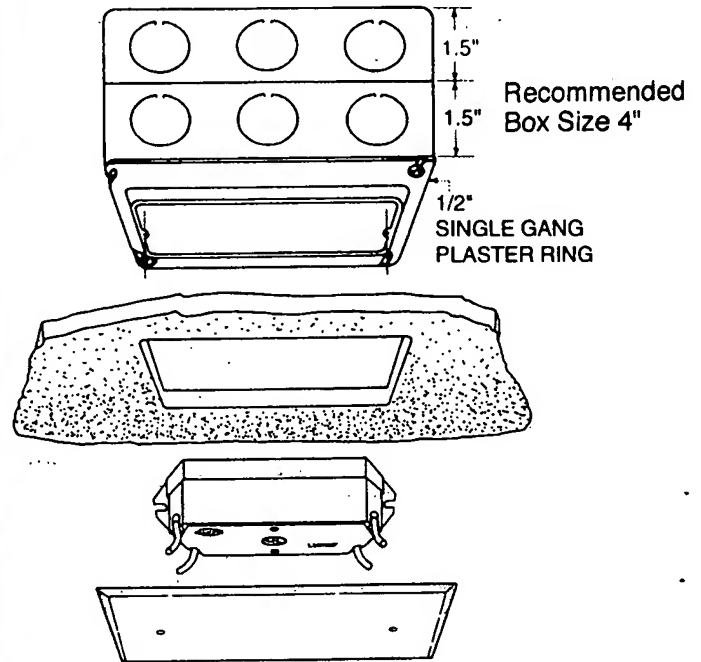
Installation

In order to install the EPC-A in accordance with national/local code requirements, a qualified electrician should review and understand the installation instructions: Check voltage and current requirements. Verify and lock out circuit breakers on both normal power and 24 hour emergency circuit. Install a self-adhesive 2" x 3" caution label in each fixture or load controlled by an EPC-A unit cautioning that this load is supplied from 2 different power sources, regular and emergency power source. Review wiring diagram and connect wires, one group at a time, in accordance with the number identification. In order to provide a safe light level, when regular power is interrupted, it is recommended that a minimum of two 4' fluorescent tubes providing approximately 5000 lumen are controlled by a 24 hour emergency circuit and are spaced no farther than 20' in any direction from each other in a normal 9' white ceiling environment. The EPC-A is a universal type unit, convenient and fast to install virtually anywhere.

EPC-A Installation behind Wall Switch



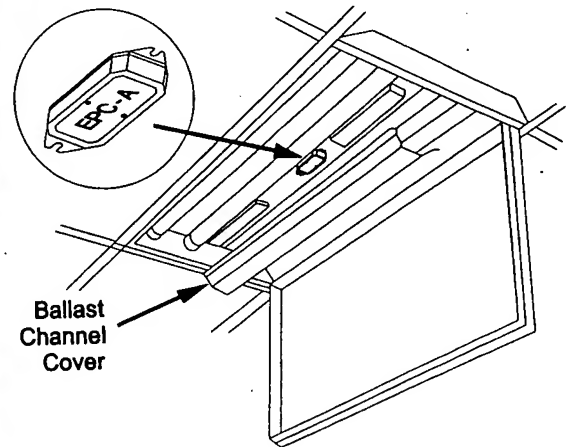
EPC-A Wall or Ceiling Installation



EPC-A is a universal mount unit, and if installed inside junction box remove mounting ears with sidecutters. When total depth of 4" square box is 3-1/2" deep, box can accommodate up to: 16 #12 gauge incoming conductors. 2 commercial 20 amp switches, 1 EPC-A with 6 conductors, meeting all N.E.C. code requirements.

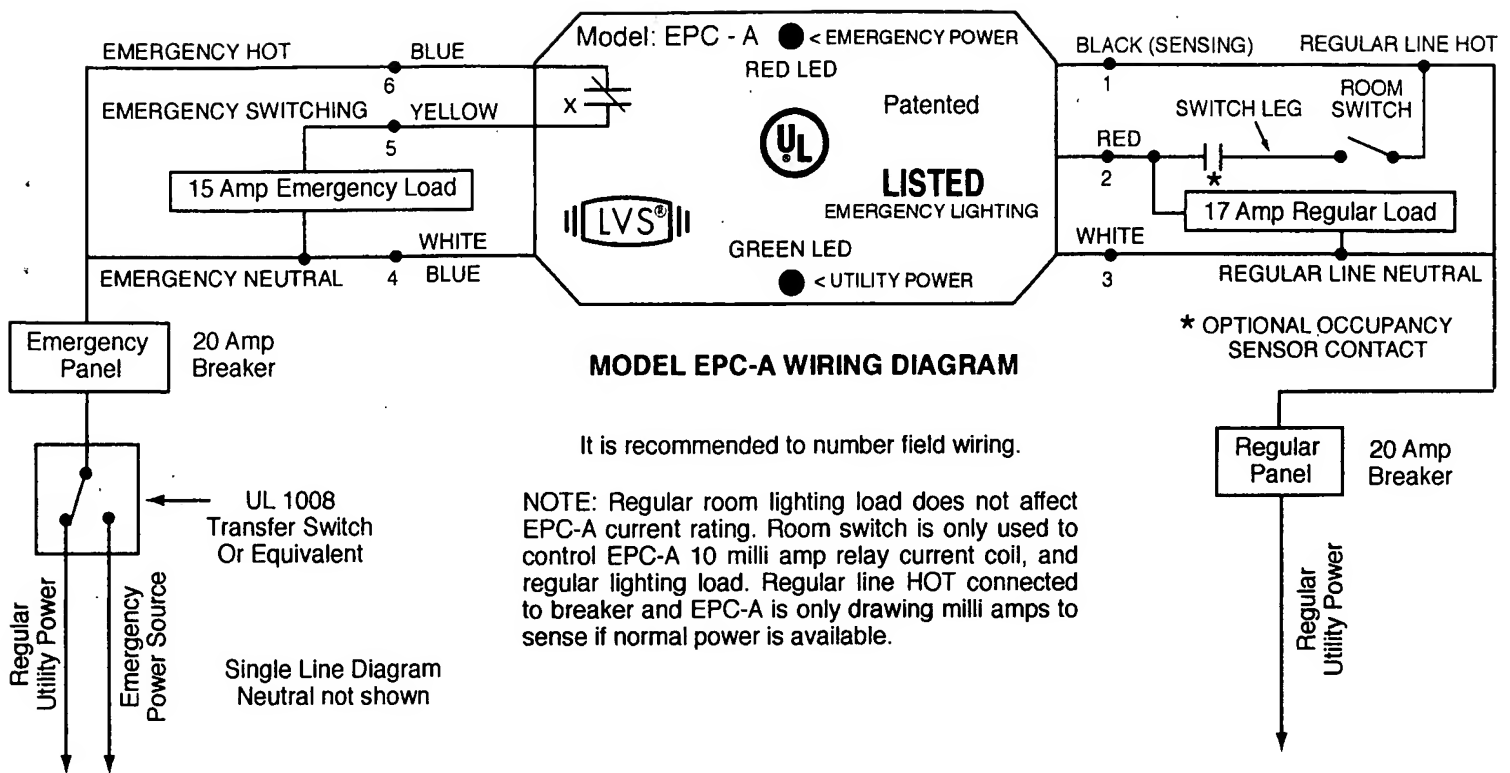
Emergency Luminaire Control Requirements

In the past, emergency luminaires powered by an emergency generator or inverter during a power outage had to be illuminated 24 hours a day, 7 days a week because of safety codes. However, these codes can now be met if a UL 924 listed emergency power transfer control is used to turn both regular and emergency luminaires on and off at the same time. During a utility power failure or room power interruption, only the designated emergency luminaires will illuminate automatically, regardless of room switch on or off position. LVS Emergency Power Controls have been tested, approved and are listed by Underwriters Laboratories under UL 924 standard designated emergency light fixture controls. They meet NEC articles 700 through 700-26, 701-717, 702-709, 705-750 wherever applicable, in addition to NFPA 1104-2.4.1, OSHA and life safety codes.



Generally power corrected electronic ballasts create high current surges.
Maximum recommended electronic ballast load: 1500watt, 120V & 277V

EPC - A is equipped with 2 mounting ears, double sided adhesive tape. In addition to adhesive tape 1 mounting ear must be securely fastened.



Emergency Power Source and Method of Operation

The emergency luminaire power is derived from a 24 hour emergency power distribution panel. The local utility power company normally supplies the power to this panel, but during a utility power failure this panel is automatically switched over to a local emergency power source such as a generator or inverter. This switch over is accompanied by a UL 1008 transfer switch or an equivalent. The room switch turns on and off both regular and emergency luminaires simultaneously. This is accomplished by having the room switch leg power activate the Emergency Power Control. Wire input #1 is connected internally to a sensing circuit. During a power interruption, this circuit causes contact X to drop into a N.C. position. Review wiring schematic for details.

Initial Testing and Trouble Shooting of EPC-A

The EPC-A is equipped with a green LED which indicates if regular utility power is available and field wiring is connected correctly. The red LED on EPC-A has the same function for emergency power in a new installation. These LED's should be left visible by leaving covers off and then proceed by turning power on regular breaker first and check if all green LED's are illuminated. Turn on emergency breaker and check if all red LED's are illuminated. The above test will confirm the correct wire connections and continuity to branch panels and emergency panels.

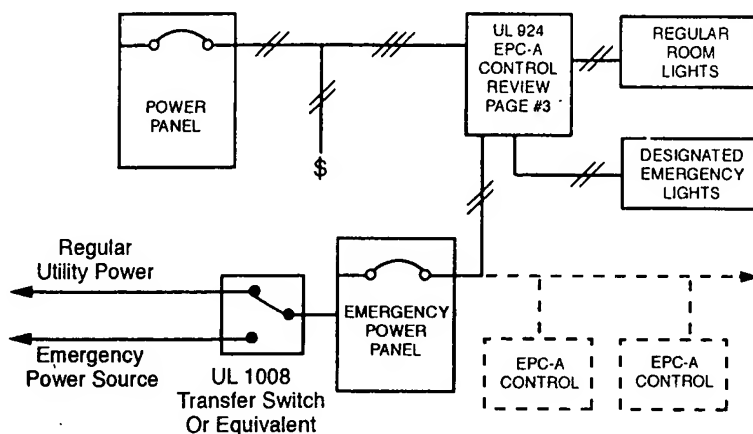
Emergency and Regular Luminaires Test

Model EPC-A is equipped with an automatic diagnostic test feature which is initiated when the room switch is momentarily turned on and then off. This simple, effortless test procedure will turn the emergency luminaires on for 15 seconds, indicating that an emergency power source is available and that the Model EPC-A, ballast, and lamp, are all functioning correctly. At all other times the room switch operates normally by turning both regular and emergency luminaires on at the same time. Another unique advantage of the Model EPC-A leaves only the emergency luminaires on for an additional 15 seconds after regular luminaires are turned off, providing safety and convenience while leaving the area. If any emergency light fixture has failed to illuminate, check power, fixture and EPC-A device and replace defective item. Now turn off the main facility breaker at a convenient time. This will automatically start the emergency generator or inverter. Transfer switch will automatically switch all emergency panels to emergency generator power, and all emergency light fixtures will then be illuminated.

Maintenance

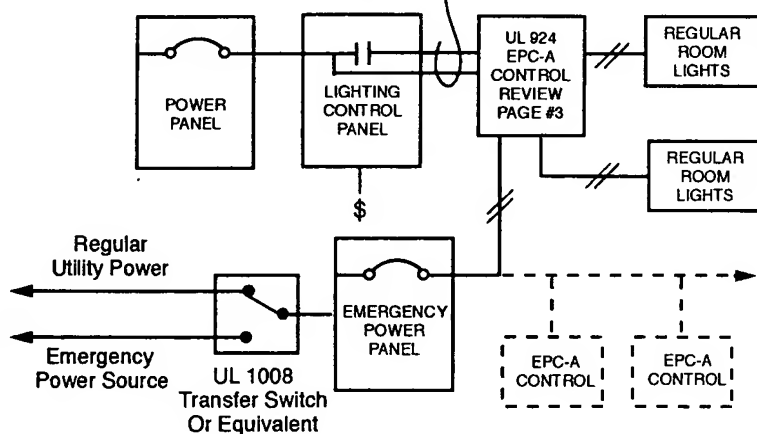
No maintenance is required to keep the EPC-A device functional. However, regular testing procedure should be used when either the lamps or ballasts have been replaced or when facility remodeling has taken place.

STANDARD LINE VOLTAGE SWITCHING LINE DRAWING

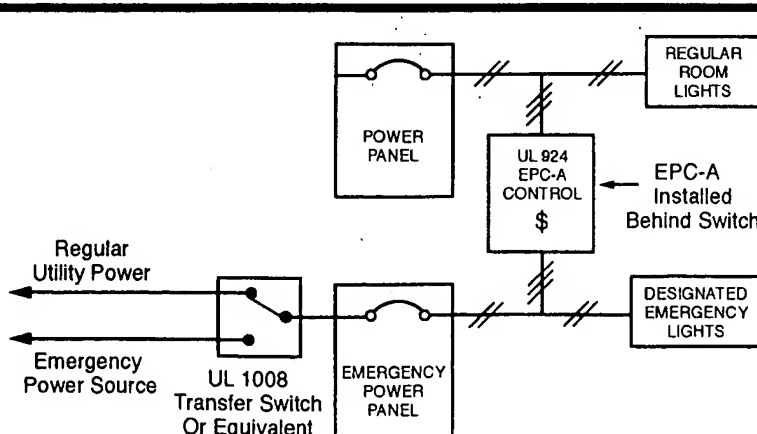
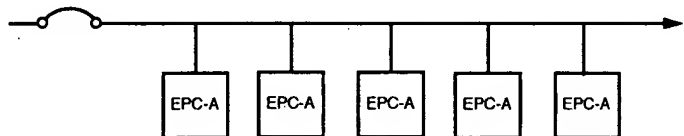


RELAY PANEL LOW VOLTAGE SWITCHING LINE DRAWING

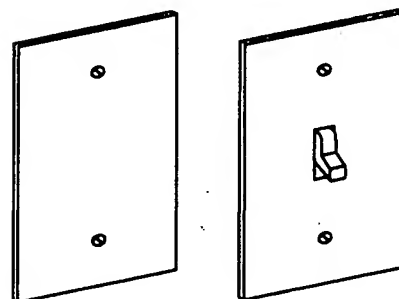
From lighting control panel to emergency power control 3 #12 wires are necessary. 1 Hot 2 Switch leg 3 Neutral.



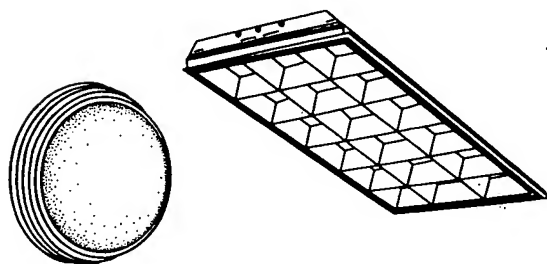
On a 20 amp circuit 1 emergency power control unit (Model EPC-A) can control up to 15 amp of emergency lighting load, or 15 emergency power controls can each control 1 amp of emergency lighting load.



- Emergency Power Transfer Control
- Invisible & Accessible Anywhere
 - Fast, versatile installation
 - Maximum performance
 - Minimum size



Behind wall switch or
Inside junction box with cover



Inside any size or type of luminaire

Features & Specifications

Regular Power & Emergency Power
Testing LED indicators

Automatic diagnostic testing feature

20 Amp N.C UL contact rating

High voltage surge protectors

Shipping Weight: 8 oz. Temp.: 10° - 150° F
Color: Black Size: 2 3/4" x 1 1/2" x 1 1/4"

5 year warranty



LVS, Inc. 2555 Nicholson St.,
San Leandro, CA 94577
Tel: 1-800-982-4587
FAX: 510-352-6707

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.